

## PUBLICATION-DATES OF GAUDICHAUD'S BOTANY OF THE VOYAGE OF THE BONITE

IVAN M. JOHNSTON

THE PRESENT notes apply mainly to the publication-dates of the volume of folio botanical plates representing part of the botanical contributions of Charles Gaudichaud-Beaupré to the series of volumes entitled "Voyage autour du monde exécuté pendant les années 1836 et 1837 sur la corvette la Bonite, commandée par M. Vaillant." These botanical plates are noteworthy for abundance of analytic details, their high quality of execution, and the large number of South American and South Pacific species and genera based upon them. They were intended to illustrate the account of the collections made by Gaudichaud during his voyage on the Bonite. Distracted by controversies concerning his curious theories regarding plant anatomy, and finally hindered by ill health, he never completed the volume of text intended to accompany the volume of botanical illustrations. No descriptions or discussions of the many proposed new species and new genera which he had illustrated were ever published by him, and no information was ever supplied as to who had collected the specimens portrayed or as to exact localities where the specimens had been collected. It seems probable that most of Gaudichaud's plates were based on material he collected during the voyage of the Bonite. However, some of the species illustrated are neither known nor to be expected at the localities which the Bonite is known to have visited (cf. Johnston, Proc. Am. Acad. 71: 13 [1936]); these must have been illustrated from material obtained by Gaudichaud on his previous voyages or from material of other collectors which Gaudichaud found in the herbaria at Paris. There is doubt as to the whereabouts of the specimens serving as the models for Gaudichaud's plates. Few if any of them appear to be in Paris. Brongniart, Ann. Sci. Nat. IV. 1: 263 and 290 (1875), has suggested that they are in the Webb Herbarium, which was available to Gaudichaud in Paris before it was finally sent to Florence, Italy. Although without diagnoses, and lacking precise information as to the specimens on which they are based, the new species and most of the new genera proposed by Gaudichaud in his volume of plates are effectively published according to the Rules of Nomenclature. The Rules state that plates published prior to 1908 shall be considered equivalent to a diagnosis if accompanied with analytic details. Gaudichaud's plates have analytic details in great abundance. Practically all authors have accepted Gaudichaud's species as legitimately published. There has, however, been some difference of opinion as to the validity of the new genera published on the plates. A discussion of this latter matter has been published by Sprague, Kew Bull. 1928: 395-397 (1928).

Some years ago, while working on a revision of the family Nolanaceae, I had my attention directed to the sixteen plates published in the *Botany of the Bonite* on which four new genera and nine new species of the Nolanaceae are founded. Matters involving priority forced me to make some attempt to date these plates. Only the most meagre and conflicting information regarding the dates of the work was available. Pritzel, *Thesaurus* 305 (1851), gives the work as beginning in 1839 and as still incomplete in 1851. Weddell, *Arch. Mus. Hist. Nat.* 9: 3 (1856), states that it was published between 1839 and 1846. In the second edition of his *Thesaurus*, p. 118 (1872), Pritzel dates the *Botany of the Bonite* as 1844–66. A note in the *Journal of Botany*, 39: 206 (1901), gives the dates of the plates as “1846–49?”. Kuntze, *Rev. Gen.* 1: cxxviii (1891), states that all the plates were published from 1846–49 and, in any case, by 1851. No dates are to be found in the *Atlas* itself. The information reported in the present paper indicates that the plates began to appear in 1841 and were completely published in 1852.

Below I give all the significant data I have accumulated regarding the dates of publication for the botanical volumes reporting on the voyage of the *Bonite*. A number of questions are left unanswered, but, since it seems unlikely that I shall be able to add any missing details, it seems best to publish what I have discovered, with the hope that some other worker can complete the story. I have searched for reviews in contemporary literature and have examined nearly a score of copies of the *Botany of the Bonite*. A search for information at Paris gave few results. At London, however, I was most successful. At the Library of the British Museum (Bloomsbury) I was granted the very great privilege of consulting the old volumes in which the invoices of all books purchased by the Library were formerly pasted. Among these old invoices I found those of T. H. Baillièrè, who supplied the library with the volumes on the voyage of the *Bonite*. These invoices mention the livraisons by number and bear the date when they were sent from the London book-importer to the Library. Another source of information is the *Bulletin of the Société de Géographie, Paris*, which gives lists of books exhibited at sessions of the society. My references to this journal refer to the sessions at which parts of the *Botany of the Bonite* were exhibited. Unfortunately there are only a few references to the *Botany of the Bonite* in the *Bibliographie de la France*; these consist partly of official announcement of issuance (usually within a few weeks of actual publication) and partly of advertisements of the publisher, A. Bertrand. Assembling data from these and other sources, the following information becomes available in dating the livraisons of the botanical volumes of the voyage of the *Bonite*.

#### FOLIO BOTANICAL PLATES

Liv. I	Baillièrè invoice, June 5, 1841.
Liv. II	Bibliog. Fr., advertisement, Sept. 4, 1841. Baillièrè invoice, Oct. 2, 1841. Bull. Soc. Géogr., Dec. 3, 1841 (liv. 1 & 2).

- Liv. III Bibliog. Fr., advertisement, Dec. 4, 1841 (liv. 1-3).  
Bibliog. Fr., Dec. 18, 1841.  
Baillièrè invoice, March 19, 1842  
Bull. Soc. Géogr., June 17, 1842.
- Liv. IV Baillièrè invoice, April 2, 1842.
- Liv. V Baillièrè invoice, Aug. 27, 1842.  
Bull. Soc. Géogr., Dec. 1842 (liv. 4 & 5).
- Liv. VI Baillièrè invoice, Oct. 8, 1842.  
Bibliog. Fr., Oct. 15, 1842.
- Liv. VII Bull. Soc. Géogr., Dec. 15, 1843 (liv. 6 & 7).
- Liv. VIII Baillièrè invoice, Nov. 4, 1843 (liv. 7 & 8).
- Liv. IX Bull. Soc. Géogr., April 12, 1844 (liv. 8 & 9).
- Liv. X —
- Liv. XI Bull. Soc. Géogr., Dec. 20, 1844 (liv. 10 & 11).
- Liv. XII Baillièrè invoice, May 16, 1844 (liv. 9-12).
- Liv. XIII Bull. Soc. Géogr., Jan. 14, 1848 (liv. 12 & 13).  
Arch. Sci. Phys. & Nat. Genève 8: 327 (1848) (liv. 11-13).
- Liv. XIV —
- Liv. XV Baillièrè invoice, March 15, 1845 (liv. 13-15).  
Bull. Soc. Géogr., April 1852 (liv. 14 & 15).
- Liv. XVI Baillièrè invoice, Oct. 23, 1847.
- Liv. XVII Baillièrè invoice, Jan. 16, 1849.
- Liv. XVIII Baillièrè invoice, Nov. 12, 1850.
- Liv. XIX —
- Liv. XX —
- Liv. XXI Baillièrè invoice, Jan. 9, 1852 (liv. 19-21).
- Liv. XXII —
- Liv. XXIII —
- Liv. XXIV Baillièrè invoice, June 8, 1852 (liv. 22-24).

## QUARTO TEXT

- "Livraison 12 et 13<sup>e</sup>." Cryptogams by Montagne, Lévèillé, and Spring; title-page dated "1844-46," but the introduction bearing the date May 20, 1846.  
Nov. Anal. des Voyages 4: 128 (Oct. 1846).  
Bibliogr. Fr., Nov. 7, 1846.  
Bull. Soc. Géogr., Dec. 18, 1846.  
Baillièrè invoice, Oct. 23, 1847.
- Liv. 15 & 16. Introduction by Gaudichaud, part one (pp. 1-354); title-page dated "1851."  
Baillièrè invoice, June 9, 1851.  
Compt. Rendu Acad. Fr. 33: 72, session of July 14, 1851.
- Liv. 17 & 18. Introduction by Gaudichaud, part 2 (pp. 1-442); title-page dated "1851."  
Compt. Rendu Acad. Fr. 33: 72, session of July 14, 1851.  
Baillièrè invoice, Jan. 9, 1852.
- "Liv. complémentaire." Explanation of Plates, Vol. 3; title-page dated "1866."  
Bibliogr. Fr., Aug. 25, 1866.  
Accessioned at British Mus. Library Dec. 6, 1866.

The data just given indicate that the botanical publications relating to the voyage of the *Bonite* appeared as four, mostly double, livraisons of octavo text, and as twenty-four livraisons of folio plates. Most of these livraisons can be dated within six months. Unfortunately I have been able to assemble only fragmentary information as to the contents of the livraisons containing plates.

The only copy of the Botany of the *Bonite* which I have seen containing what appear to be accession-dates is that in the British Museum. On various plates of this copy are dates, either written or stamped. Accompanying the dates to the close of 1847 are also numbers (given in parentheses following the dates in the subjoined tabulation) which appear to be lot accession-numbers. By correlating the dates found on the plates with the dated itemized invoices of Baillière I had hoped to identify the livraisons to which the dated plates belonged. In three cases only are the dates on the plates definitely associated with the invoices. The red date-stamp on *plate 148* is also found on the invoice for Nov. 12, 1850, the red date-stamp on *plates 101-118* is also on the invoice for Jan. 9, 1852, and the red date-stamp on *plates 119-130* is also present on the invoice of June 8, 1852. The other accession-dates, however, would appear to correlate reasonably well with the dated invoices. The resulting tabulation given below, however, is so puzzling and in places so contradictory of facts which I have established from other sources that I distrust all conclusions to be drawn from it.

PLATE	PLATE MARKED	BAILLIÈRE INVOICE	LIVRAISON
11	Nov. 9, 1841 (186)	June 5, 1841	liv. 1
1	Jan. 5, 1842 (10)	Oct. 2, 1841	liv. 2
21	April 1, 1842 (132)	March 19, 1842	liv. 3
9	April 1, 1842 (152)	April 2, 1842	liv. 4
31	Dec. 8, 1842 (174)	Aug. 27, 1842	liv. 5
41	Dec. 8, 1842 (203)	Oct. 8, 1842	liv. 6
39, 40	Dec. 7, 1843 (294)	Nov. 4, 1843	liv. 7, 8
51	Dec. 7, 1843 (295)		
141	June 5, 1844 (303)	May 16, 1844	liv. 9, 10, 11, 12
71, 77, 79	June 12, 1845 (721-23)	March 15, 1845	liv. 13, 14, 15
81	Nov. 8, 1847 (141)	Oct. 23, 1847	liv. 16
88	July 13, 1849	Jan. 16, 1849	liv. 17
148	Dec. 12, 1850	Nov. 12, 1850	liv. 18
101-118	June 3, 1852	Jan. 9, 1852	liv. 19, 20, 21
119-130, title-page	Nov. 11, 1852	June 8, 1852	liv. 22, 23, 24

I have seen livraison-covers and have complete information as to the contents and livraison-number of all the volumes of octavo text and of six livraisons of quarto plates. I have given this information for the octavo text. The only livraison-covers of the plates seen by me are those in the copies of the folio at the Gray Herbarium and the Arnold Arboretum.

Those at the Arboretum (liv. 7, 8, 10, 11, 12) were purchased by me from a book-dealer in Paris. The livraison-covers in which the plates were distributed are undated and bear pasted on them a printed slip, without date, giving the livraison-number and the name and serial numbers of the plates it contained. The contents of the livraisons of which I have seen covers are as follows:

liv. 7	plates 141-150
liv. 8	plates 61-70
liv. 10	plates 71-80
liv. 11	plates of hydroids numbered 1-6
liv. 12	plates 81-91
liv. 20	plates 107-112

From the few livraison-covers seen it is clear that the plates were not issued in regular serial order, and, furthermore, that some of the livraisons contained only six plates while others contained ten. By extrapolation it is impossible to use the contents of the known livraisons to determine the contents of those unknown. While I am convinced that the Bonite plates will remain a bibliographic puzzle until someone discovers and reports on a complete set of livraison-covers, I believe it is possible by use of information at hand to work out a reasonable and more accurate and detailed dating of the plates than now available.

PLATES 1-30. The first thirty plates are listed in the eighth Heft (August ?) of Oken's *Isis* for 1842, p. 625. Since we know that the first three livraisons did appear before 1842, it seems probable that the plates listed by Oken represent the first three livraisons, each containing ten plates.

PLATES 31-70. According to Gaudichaud, *Ann. Sci. Nat.* II. 20: 208 (Sept. ?, 1843), *plates 42, 43, and 44* are parts of liv. 5. This is as it should be if the publisher issued the plates serially in lots of ten, for *plates 31-40* would fall in liv. 4 and *plates 41-50* would make up liv. 5. I have seen a cover for liv. 8 which indicates that it contains *plates 61-70*. A cover for liv. 7 indicates that it contains *plates 141-150*. I have no information as to the contents of liv. 6. I suspect it may have contained *plates 51-60*.

PLATES 71-100. A cover for liv. 10 shows that it contained *plates 71-80*. As shown by another cover, liv. 12 contained *plates 81-90*. According to a reviewer, *Arch. Sci. Phys. & Nat. Genève* 8: 327 (1848), liv. 12 and 13 were composed of plates showing chiefly new or little-known Urticaceae. All of liv. 12, *plates 81-90*, represents the Urticaceae. The decade of plates numbered 91-100, except for *plates 99 and 100* (a fern and an aroid), also represents Urticaceae. The style of printing on *plates 91-100* agrees with that on *plates 81-90* and differs from other plates in the volume. It seems very probable, therefore, that liv. 13 contained *plates 91-100*.

PLATES 101-130. At the British Museum *plates 101-118* are all stamped in red ink "3 JU 52." This same abbreviation is also stamped on

the Baillièrè invoice of Jan. 9, 1852, in which livraisons 19, 20, and 21 are listed. I have seen a cover for liv. 20, listing its contents as *plates 107–112*. This suggests that this group of livraisons probably contained only six plates each, and that liv. 19 contained *plates 101–106*, liv. 20 contained *plates 107–112*, and liv. 21 contained *plates 113–118*. Also at the British Museum, *plates 119–130*, as well as the title-page and table of contents, all bear the red stamp "11 NO 52," as does also the Baillièrè invoice of June 8, 1852, in which livraisons 22, 23, and 24 are itemized. It seems likely, therefore, that liv. 22 contained *plates 119–124*, liv. 23 contained *plates 125–130*, and liv. 24 contained the title-page and table of contents. *Plates 101–130* were evidently the last parts of the botanical folio to be issued. They were not printed by Bougeard, the printer of the other plates in the volume.

PLATES 131–150. Of this group of plates, *136–150* portray cryptogams and illustrate the reports prepared by Montagne and by Lèveillé. These men prepared their reports promptly and were evidently annoyed at the delay in publishing their work. Many of their new species were published in periodicals because of the delay, and it appears that both issued advance privately circulated copies of the text which eventually appeared as part of the Bonite reports. Although numerically they are the concluding plates in the volume, *plates 136–150* were probably issued out of order to satisfy Montagne and Lèveillé, whose work was in print. A cover for liv. 7 shows that it contains *plates 141–150*. Montagne, *Ann. Sci. Nat.* II. 19: 238 (April 1843), complains that the original numbering of these plates, as *1–10*, had against his wishes been changed to *141–150*. Since the plates to illustrate Montagne's work were printed out of sequence, it seems probable that the plates numbered *136–140*, illustrating Lèveillé's work, were given similar treatment. The style of headings on Lèveillé's plates differs from that on Montagne's. I suspect that the plates of fungi, nos. *136–140*, appeared as liv. 9. This would leave five plates, nos. *131–135*, and five livraisons, nos. 14–18, unaccounted for. Possibly livraisons 14–18 each contained only a single plate.

It should be noted that livraison no. 11 of the botanical series of plates consists of six plates of hydroids. These zoological plates, numbered *1–6*, although issued in the botanical series, belong with the volume of "Zoophytologie" by Laurents. I have seen a cover of liv. 11. The fact that this zoological material appeared among the botanical plates was noted by contemporary reviewers, *Arch. Sci. Phys. & Nat. Genève* 8: 327 (1848). Kuntze, *Rev. Gen.* 1: cxxviii (1891), has also noted this fact.

The following tabulation summarizes my conclusions as to the contents of the twenty-four livraisons of folio plates. The dates are those established earlier in this paper.

LIVRAISON	PLATES	DATE
1 } 2 } 3 }	1-30	1841
4	31-40	1841
5	41-50	1842
6	51-60 ?	1842
7	141-150 !	1843
8	61-70 !	1843
9	136-140 ?	1844
10	71-80 !	1844
11	Hydroids (1-6) !	1844
12	81-91 !	1844
13	91-100	1847-48
14 } 15 } 16 } 17 } 18 }	131-135 ?	1845-50
19	101-106	1851
20	107-112 !	1851
21	113-118	1851
22	119-124	1852
23	125-130	1852
24	title-page	1852

ARNOLD ARBORETUM,  
HARVARD UNIVERSITY.